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44. (Amended) A method for screening for a compound which alters the binding of [a scavenger receptor protein selected from the group consisting of] scavenger receptor protein type BI [which selectively binds to low density lipoprotein and to modified lipoprotein having the characteristics of acetylated low density lipoprotein and scavenger receptor protein type CI which selectively binds to modified lipoprotein having the characteristics of acetylated low density lipoprotein and having the structure of the scavenger receptor protein defined by Sequence ID No. 6] comprising

providing an assay for binding of low density lipoprotein or modified low density lipoprotein to the scavenger receptor protein,

adding the compound to be tested to the assay, and

determining if the amount of modified low density lipoprotein or low density lipoprotein which is bound to the scavenger receptor protein is altered as compared to binding in the absence of the compound to be tested.

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50. (Amended) A method for screening patients for abnormal scavenger receptor protein activity or function comprising

determining the presence of [a scavenger receptor protein selected from the group consisting of] scavenger receptor protein type BI [which selectively binds to low density lipoprotein and to modified lipoprotein having the characteristics of acetylated low density lipoprotein and scavenger receptor protein type CI which selectively binds to modified lipoprotein having the characteristics of acetylated low density lipoprotein and having the structure of the scavenger receptor protein defined by Sequence ID No. 6 in a patient

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sample], and comparing the scavenger receptor for to determine if the quantity present or  
the function of the receptor is equivalent to that present in normal cells.

Respectfully submitted,



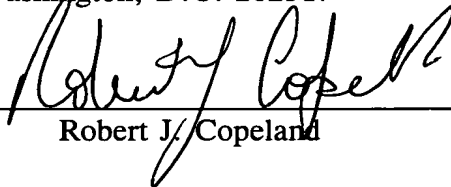
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Date: 23 December 1996  
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CERTIFICATE OF MAILING UNDER 37 CFR § 1.10

I hereby certify that this Preliminary Amendment, and any documents referred to as attached therein are being deposited with the United States Postal Service on this date, 23 December 1996, in an envelope as "Express Mail Post Office to Addressee" service under 37 CFR § 1.10, Mailing Label Number EM470184770US addressed to Box PCT, Assistant Commissioner for Patents, Washington, D.C. 20231.

Date: 23 December 1996



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MIT6620 CIP  
Pending Claims

9. An antibody to scavenger receptor protein which selectively binds to low density lipoprotein and to modified lipoprotein having the characteristics of acetylated low density lipoprotein.

10. The antibody of claim 9 further comprising a detectable label.

11. An isolated nucleic acid sequence encoding or regulating the expression of a scavenger receptor protein type BI which selectively binds to low density lipoprotein and to modified lipoprotein having the characteristics of acetylated low density lipoprotein.

12. The sequence of claim 11 expressed in cells selected from the group consisting of adipocytes, lung and liver.

13. The sequence of claim 11 hybridizing under stringent conditions to Sequence ID No. 3.

14. The sequence of claim 13 wherein the sequence is Sequence ID No. 3 or a degenerate variant thereof.

15. The sequence of claim 11 encoding an amino acid sequence consisting essentially of the sequence shown in Sequence ID No. 4.

16. The sequence of claim 11 regulating expression of genomic DNA encoding the scavenger receptor protein.

17. The sequence of claim 11 encoding the scavenger receptor protein.

18. The sequence of claim 11 which is genomic DNA.

19. The sequence of claim 11 which encodes the human scavenger receptor.

20. The sequence of claim 11 labeled with a detectable label.

21. The sequence of claim 11 encoding the scavenger receptor protein further comprising an expression vector.

22. The sequence of claim 21 further comprising a host cell suitable for expression of the scavenger receptor.

44. A method for screening for a compound which alters the binding of scavenger receptor protein type BI comprising

providing an assay for binding of low density lipoprotein or modified low density lipoprotein to the scavenger receptor protein,

adding the compound to be tested to the assay, and

determining if the amount of modified low density lipoprotein or low density lipoprotein which is bound to the scavenger receptor protein is altered as compared to binding in the absence of the compound to be tested.

45. The assay of claim 44 wherein the assay includes a cell expressing the scavenger receptor protein and the compound is a nucleic acid sequence which alters expression of the scavenger receptor protein.

46. The assay of claim 44 wherein the compound is selected from a library of naturally occurring or synthetic compounds which are randomly tested for alteration of binding.

47. The assay of claim 44 wherein the compound competitively inhibits binding to the scavenger receptor protein.

48. A method for removing low density lipoprotein from patient blood comprising reacting the blood with immobilized scavenger receptor protein type BI which selectively binds to low density lipoprotein and to modified lipoprotein having the characteristics of acetylated low density lipoprotein under conditions wherein the low density lipoprotein is bound to the scavenger receptor.

49. A method for inhibiting uptake of lipoprotein or lipids by adipocytes comprising selectively inhibiting binding of lipoprotein to the scavenger receptor protein type BI which selectively binds to low density lipoprotein and to modified lipoprotein having the characteristics of acetylated low density lipoprotein under conditions wherein the low density lipoprotein is bound to the scavenger receptor.

50. A method for screening patients for abnormal scavenger receptor protein activity or function comprising

determining the presence of scavenger receptor protein type BI, and comparing the scavenger receptor for to determine if the quantity present or the function of the receptor is equivalent to that present in normal cells.